

FROM ECSEL JU TO KDT JU

Yves GIGASE
Head of Programmes
National Infoday Portugal
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KDT JU

KEY DIGITAL
TECHNOLOGIES
JOINT UNDERTAKING



ECSEL JU 2014-2021

First generation JUs: ENIAC & ARTEMIS JU 2008-2014

- **full bottom-up**
- 2011-2013: **pilot lines, building critical mass**
- payments of EU funding part **linked to national cost recognition**
- start as first of its kind **tripartite** in the universe of European institutions



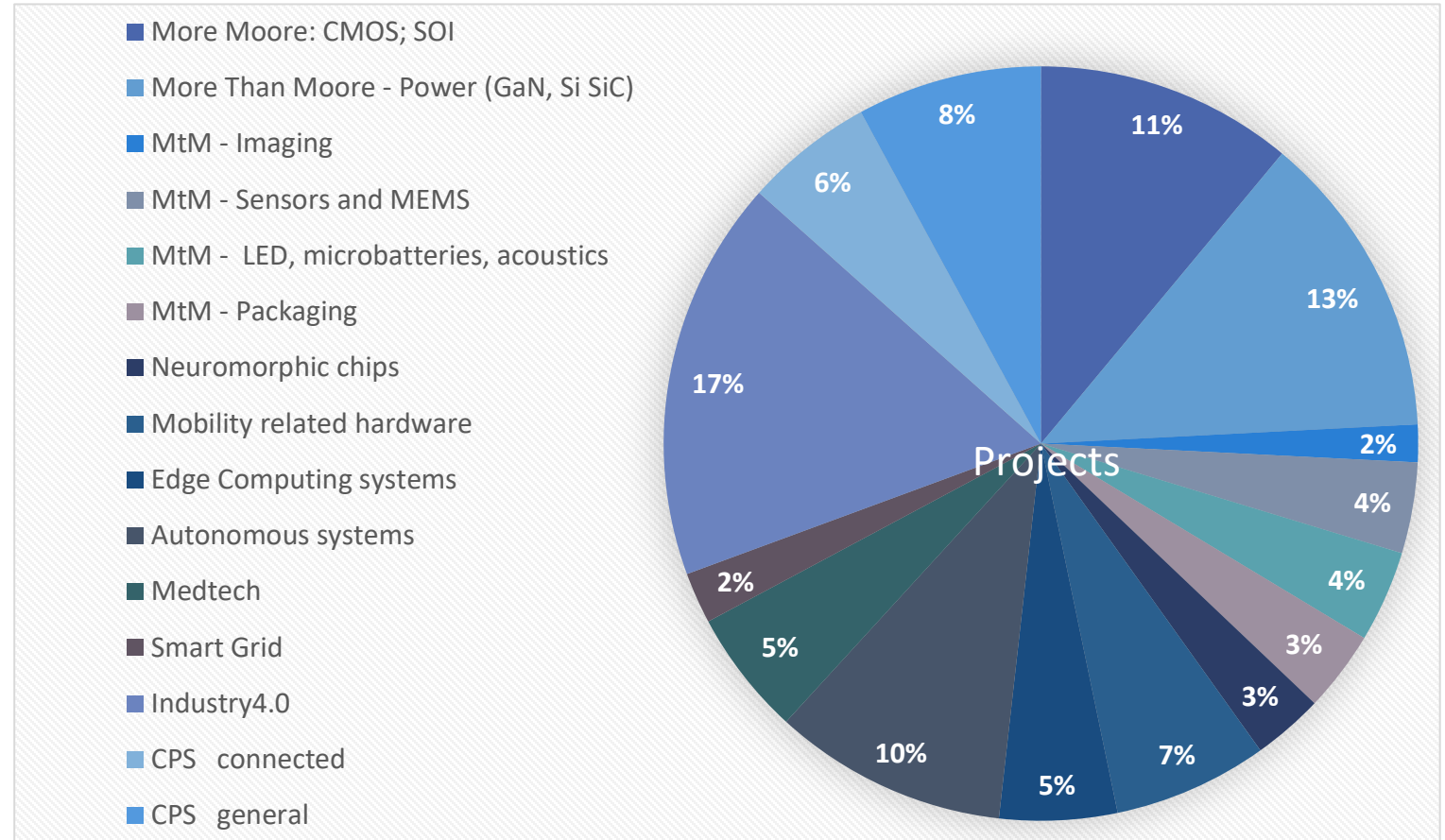
Second generation JU ECSEL JU 2014-2021

- along the **value chain**
- focussed on **industrial leadership** that promote synergies between commercial strategies and societal needs
- full bottom-up **with some special topics** that re-inforce/align national strategies and European priorities
- programme based on the **common agenda of Europe's ECS**
- **lighthouse initiatives**: Mobile.E, Industry4.E, Health.E
- payments of **EU funding based on H2020 rules**, national funding on national cost recognition (with few NA adopting the H2020 rules)
- start as merger of the first two joint undertakings: growing bigger



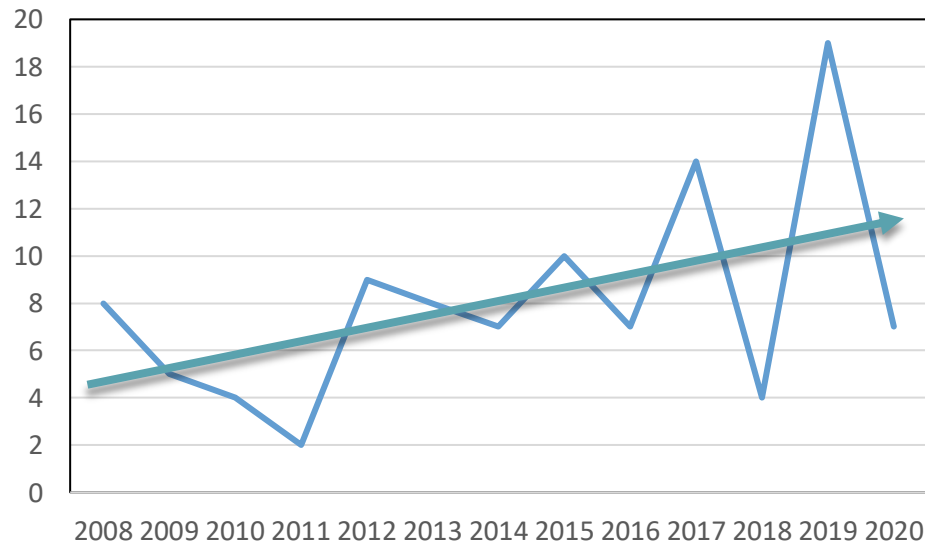
ECSEL JU 2014-2021

- 96 projects including 4 CSAs
- 3 220 beneficiaries
- 4 690 million Euro cost
- 2 280 million Euros in funding (EU+national)
- 408 500 Persons-month
- project participants from 29 participating states



PORTUGUESE PARTICIPATION IN ECSEL JU

- 68 Portuguese organisations participated in 24 selected projects (14 large companies, 19 SMEs and 35 Universities and RTOs)
- Total cost of 21.5 M€ from Portuguese participants
- Portuguese participants will receive 12 M€ from European and national funding



WE DID IT!

30 NOVEMBER 2021: KDT ENTRY INTO FORCE

16 DECEMBER 2021: FIRST KDT CALLS 2021

The screenshot shows the KDT JU website homepage. At the top left is the KDT JU logo and name: "KDT JU Key Digital Technologies Joint Undertaking". To the right are social media icons for LinkedIn and Twitter, and the European Union flag. Below the header is a navigation menu with links for "Participate", "Events", "Media", "About", "Documents", and "Contact". The main content area features a large banner with the headline "ECSEL JU becomes KDT JU". The text below the headline states: "KDT JU - successor to ECSEL JU - is a EU-driven, public-private partnership, funding innovation in electronic components and systems." and "KDT JU continues to support the ongoing activities of the ECSEL JU." A yellow "LEARN MORE" button is positioned at the bottom right of the banner. Below the banner is a statistics section with a circuit-like background. It lists: "ECSEL JU Achieved:", "16 Calls", "92 Projects", "More than 3100 participations", "4.8 bn€ RDI cost", "2.2 bn€ EU and National funding", and "2.6 bn€ Industries' own financing". An arrow points from the 2.2 bn€ figure to a larger "KDT JU 3.6 bn€" figure.

KDT JU
Key Digital Technologies Joint Undertaking

MEMBERS [in](#) [twitter](#)

[Participate](#) [Events](#) [Media](#) [About](#) [Documents](#) [Contact](#)

ECSEL JU becomes KDT JU

KDT JU - successor to ECSEL JU - is a EU-driven, public-private partnership, funding innovation in electronic components and systems.

KDT JU continues to support the ongoing activities of the ECSEL JU.

[LEARN MORE](#)

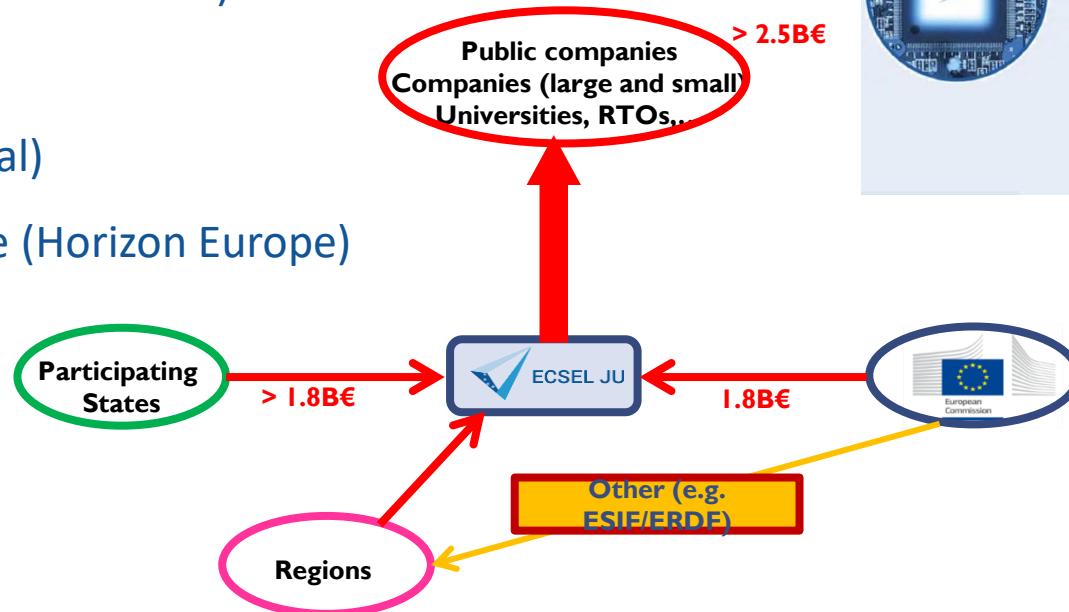
ECSEL JU Achieved:

- 16 Calls
- 92 Projects
- More than 3100 participations
- 4.8 bn€ RDI cost
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KDT JU 3.6 bn€

KDT JU 2021-2027

- Third generation JU
- KDT JU = Key Digital Technology Joint Undertaking
- Tripartite: Commission - Participating states – Industry associations
- Associations: AENEAS, INSIDE, EPoSS
- Started : 30 November 2021 (ECSEL JU -> KDT JU)
- Budget ambition : 6B€ funded by 1,8 B€ (EU)+1,8 B€ (national)
- Based on new framework programme (Horizon Europe)



KDT GOVERNANCE

Union Body with Legal Personality

Governing Board

KDT Members
(EC, Participating States, Private Members)

- **Strategic orientation, supervision**

Approves the ECS-SRIA, Work Programme (WP), strategic orientation and all operations of the KDT JU, and supervises the implementation of its activities

Executive Director

Programme Office

- **Chief Executive, legal representation**

Elaborates budget proposal, executes calls; monitors projects

Public Authorities Board

European Commission,
KDT Participating States

- **Representatives of the Public Authorities**

Approves rules of procedure and launch of calls for proposals, establishes funding budget, selection and allocation of funding to successful proposals

Private Members Board

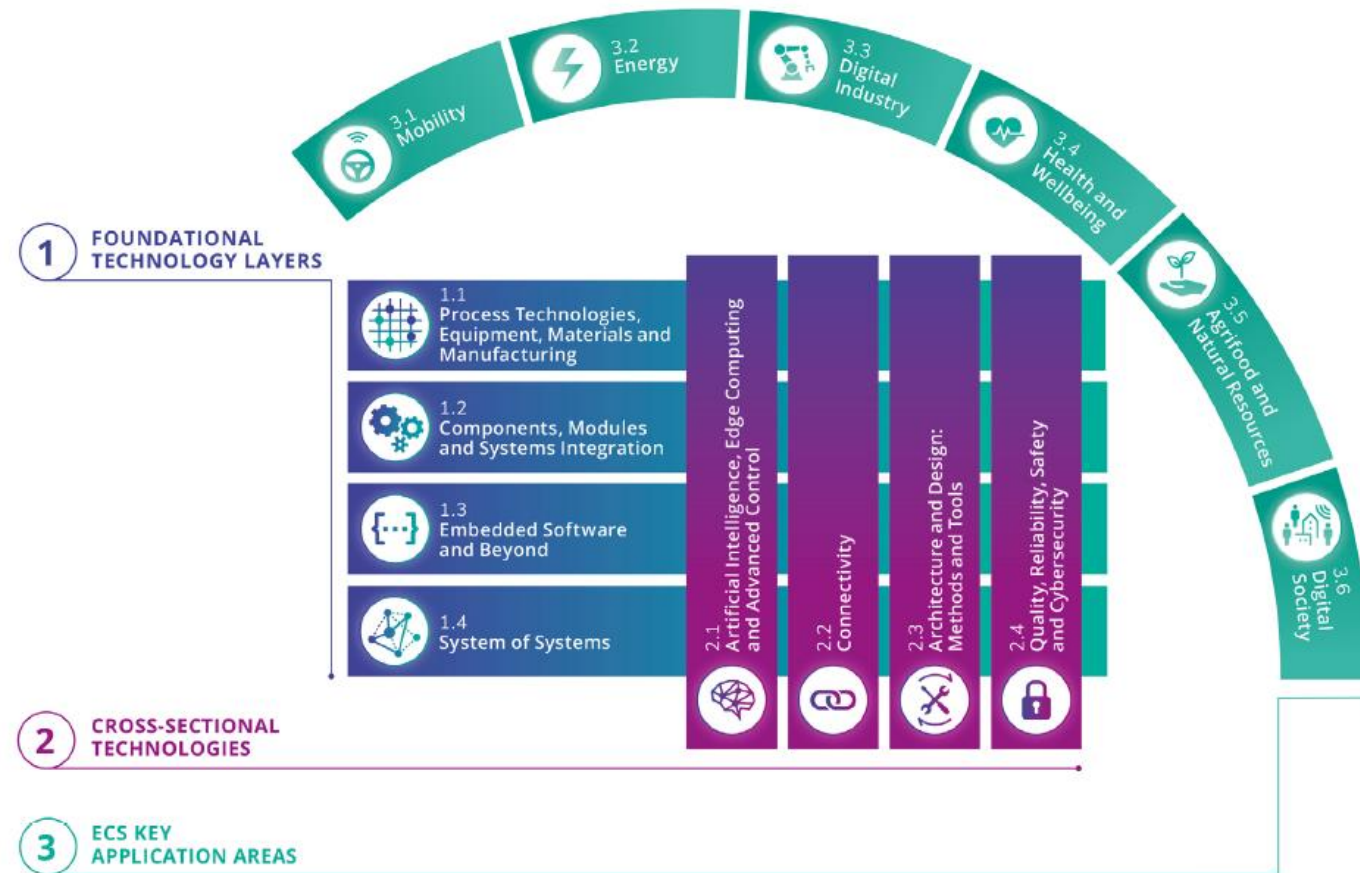
AENEAS, INSIDE, EPoSS

- **Defines research agenda**

Elaborates the Strategic Research and Innovation Agenda (ECS-SRIA) and organise supporting activities and events including an annual Stakeholder Forum.

ECS SRIA

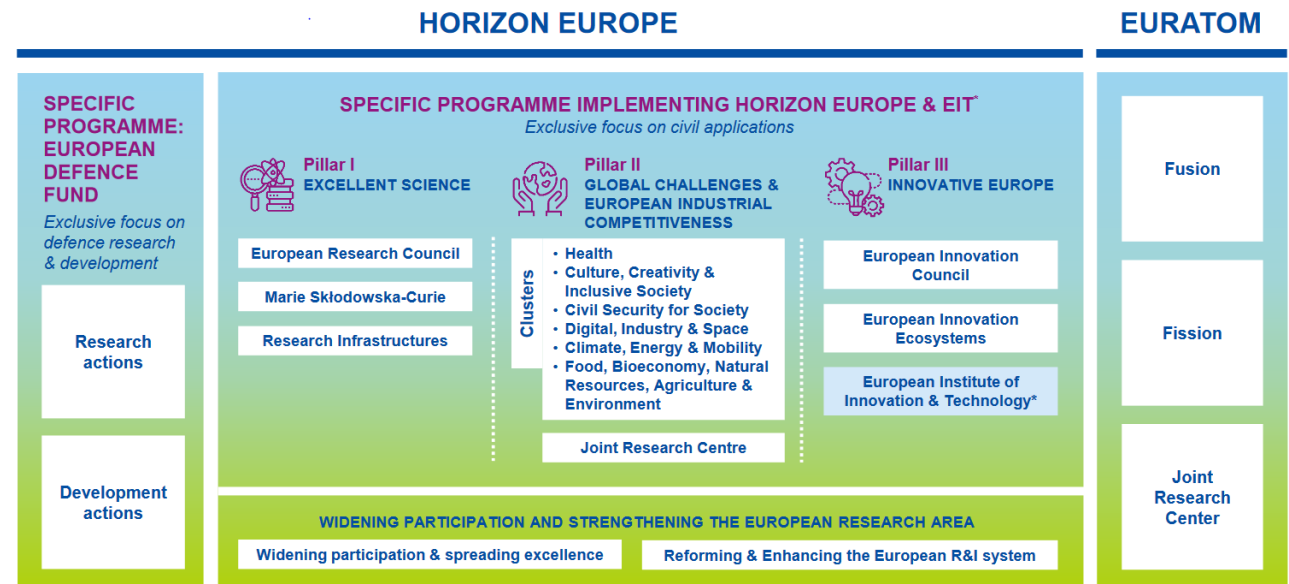
- Boost **industrial competitiveness** through **interdisciplinary** technology innovations.
- Ensure/reinforce **EU strategic autonomy** through secure, safe and reliable ECS supporting key European application domains.
- Establish and strengthen sustainable and resilient ECS value chains supporting the **Green Deal**.
- Unleash the full potential of intelligent and autonomous ECS-based systems for the **European digital era**.



HORIZON EUROPE

Accelerate the **twin green and digital transitions** and associated transformation of our economy, industry and society.

Special attention will be given to ensuring vibrant cooperation between **universities, scientific communities and industry, small and medium enterprises.**



* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

COOPERATION ASPECTS

Potential for synergies through cooperative actions are multiple :

- Smart Networks & Services: initiative on 5G and 6G connectivity
- European High Performance Computing: initiative on underlying supercomputing capacities
- Photonics, AI, data, robotics, Global competitive space system and Made in Europe: synergies are needed where EU industry has to develop leadership and competitiveness in the global digital economy.
- Digital Europe Programmes with testing facilities, skills development and capacity building activities in specific digital domains, similar for Connecting Europe Programmes
- Health, Mobility and Energy partnerships
- IPCEI, other national programmes
- Eureka clusters
- Coordination with regional clusters such as Silicon Europe, Silicon Saxony (Dresden), Minalogic (Grenoble), and DSP Valley (Leuven-Eindhoven)

European Partnerships

HORIZON EUROPE PILLAR II - Global challenges & European industrial competitiveness

CLUSTER 1: Health	CLUSTER 4: Digital, Industry & Space	CLUSTER 5: Climate, Energy & Mobility	CLUSTER 6: Food, Bioeconomy, Agriculture, ...
Innovative Health Initiative	Key Digital Technologies	Clean Hydrogen	Circular Bio-based Europe
Global Health Partnership	Smart Networks & Services	Clean Aviation	Rescuing Biodiversity to Safeguard Life on Earth
Transformation of health systems	High Performance Computing	Single European Sky ATM Research 3	Climate Neutral, Sustainable & Productive Blue Economy
Chemicals risk assessment	European Metrology (Art. 185)	Europe's Rail	Water4All
ERA for Health	AI-Data-Robotics	Connected and Automated Mobility (CCAM)	Animal Health & Welfare*
Rare diseases*	Photonics	Batteries	Accelerating Farming Systems Transitions*
One-Health Anti Microbial Resistance*	Made in Europe	Zero-emission waterborne transport	Agriculture of Data*
Personalised Medicine*	Clean steel – low-carbon steelmaking	Zero-emission road transport	Safe & Sustainable Food System*
Pandemic Preparedness* <i>Co-funded or co-programmed</i>	Processes4Planet	Built4People	
	Global competitive space systems**	Clean Energy Transition	
		Driving Urban Transitions	

■ Institutionalised Partnerships (Art 185/7)
■ Institutionalised Partnerships / EIT KICs
■ Co-Programmed
■ Co-Funded

* Calls with opening dates in 2023-24
 ** Calls with opening dates not before 2022

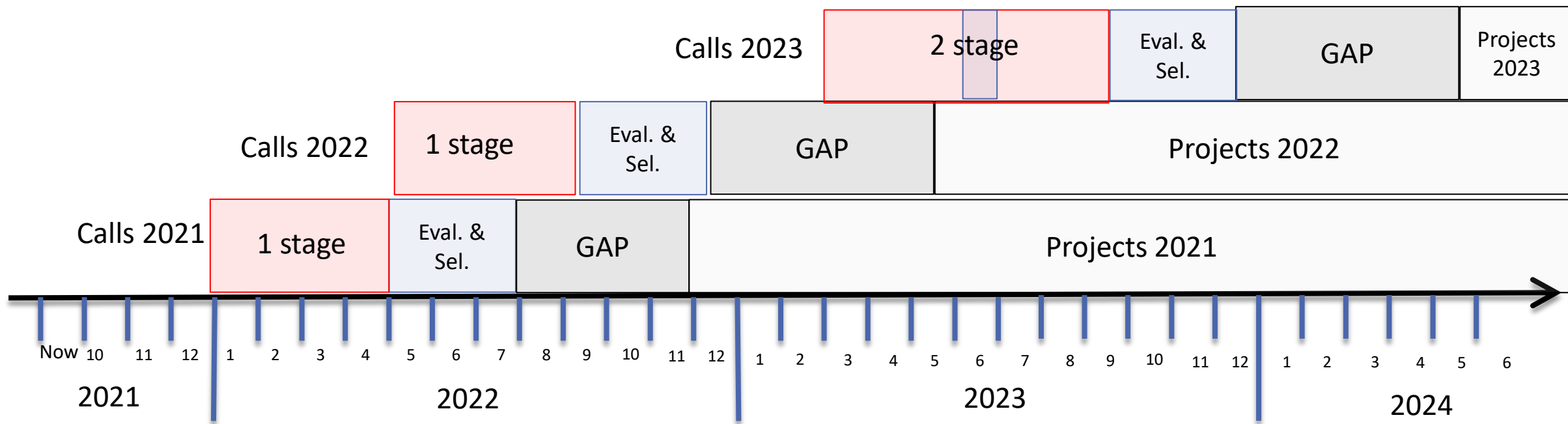


UPCOMING CALLS

Caveat: no decisions yet for calls 2022 and calls 2023

Call 2022: larger budget than call 2021

Call 2023: 2 stage



A NEW DEVELOPMENT: EUROPEAN CHIPS ACT



Fevereiro de 2022
#EUChipsAct #DigitalEU



Queremos criar, coletivamente, um ecossistema europeu de microcircuitos de ponta, incluindo a fase de produção. Temos de interligar as nossas capacidades de investigação, conceção e ensaio de craveira mundial. Temos de coordenar investimentos nacionais e da UE ao longo da cadeia de valor. Não se trata apenas de uma questão de competitividade. Trata-se também de uma questão de soberania tecnológica.

Ursula von der Leyen

Presidente da Comissão Europeia, Discurso sobre o Estado da União de 2021



Os circuitos integrados de semicondutores são os componentes básicos de produtos eletrónicos que utilizamos constantemente: desde telemóveis inteligentes e computadores até aparelhos domésticos e equipamento médico de emergência, passando por equipamentos de setores como as comunicações, a energia, a automatização industrial, etc. Os circuitos estão em todo o lado.

Em 2020, fabricaram-se mais de **1 bilhão de circuitos integrados** em todo o mundo, ou seja, cerca de **130 circuitos por cada pessoa na Terra**.

Escassez mundial desde 2020